User manual

Thank you for choosing Philips.

Need help fast?

Read your User's Manual first for quick tips that make using your Philips product more enjoyable.
If you have read your instructions and still need assistance,

you may access our online help at www.philips.com/support



PHILIPS

General Information

Environmental Information

All unnecessary packaging has been omitted. The packaging has been made easy to separate into three materials: cardboard (box), polystyrene foam (buffer) and polyethylene (bags, protective foam sheet).

Your DVD player consists of materials which can be recycled and reused if disassembled by a specialized company. Please observe the local regulations regarding the disposal of packaging materials, exhausted batteries and old equipment.

Laser safety

This unit employs a laser. Due to possible eye injury, only a qualified service person should remove the cover or attempt to service this device.

NOTE:

PICTURES SHOWN MAYBE DIFFERENT BETWEEN COUNTRIES.

CAUTION (WARNING LOCATION: ON THE BACKPLATE OF THE SET)

NEVER MAKE OR CHANGE CONNECTIONS WITH THE POWER SWITCHED ON.

Important Note:

Due to the numerous versions of new CD-Audio copy protection or enhanced CD-Audio protection recently available on certain discs, Philips is unable to guarantee that this DVD Player is fully compatible with such new discs. Should you have difficulty playing any such CD-Audio discs, kindly refer them to your CD-Audio disc retailer.

English ----- 6



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This product incorporates copyright

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engineering or disassembly is prohibited.

D I G I T A L

Manufactured under license from Dolby Laboratories, "Dolby" and the double-D symbol are trademarks of Dolby Laboratories.

Due to the inconsistency of disc formats provided by various disc manufacturers, your DVD system may require a playability enhancement or upgrade. As DVD technology advances, these enhancements will become common and will be easy to complete.

Go to www.philips.com/support for software upgrade.

3

The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on apparatus.

Specifications are subject to change without notice. Trademarks are the property of Koninklijke Philips Electronics N.V. or their respective owners.

For Customer Use:

Read carefully the information located at the rear of your DVD VIDEO player and enter below the Serial No. Retain this information for future reference.

Model No. DVP 3020K Serial No. LASER

Type Semiconductor laser

GaAlAs

Wave length 650 nm (DVD)

780 nm (VCD/CD)

Output Power 7 mW (DVD)

10 mW (VCD/CD)

Beam divergence 60 degree

Language Code

Abkhazian	6566	Inupiaq	7375	Pushto	8083
Afar	6565	Irish	7165	Russian	8285
Afrikaans	6570	Íslenska	7383	Quechua	8185
Amharic	6577	Italiano	7384	Raeto-Romance	8277
Arabic	6582	lvrit	7269	Romanian	8279
Armenian	7289	apanese	7465	Rundi	8278
Assamese	6583	lavanese	7486	Samoan	8377
Avestan	6569	Kalaallisut	7576	Sango	8371
Aymara	6589	Kannada	7578	Sanskrit	8365
Azerhaijani	6590	Kashmiri	7583	Sardinian	8367
Bahasa Melayu	7783	Kazakh	7575	Serbian	8382
Bashkir	6665	Kernewek	7587	Shona	8378
Belarusian	6669	Khmer	7577	Shqip	8381
Bengali	6678	Kinyarwanda	8287	Sindhi	8368
Bihari	6672	Kirghiz	7589	Sinhalese	8373
Bislama	6673	Komi	7586	Slovensky	8373
Bokmål, Norwegian	7866	Korean	7579	Slovenian	8376
Bosanski	6683	Kuanyama; Kwanyama	7574	Somali	8379
		Kurdish	7585	Sotho; Southern	8384
Brezhoneg	6682 6671	Lao	7679	South Ndebele	7882
Bulgarian			7665	Sundanese	
Burmese	7789	Latina			8385
Castellano, Español	6983	Latvian	7686	Suomi	7073
Catalán	6765	Letzeburgesch;	7666	Swahili	8387
Chamorro	6772	Limburgan; Limburger	7673	Swati	8383
Chechen	6769	Lingala	7678	Svenska	8386
Chewa; Chichewa; Nyanja		Lithuanian	7684	Tagalog	8476
中文	9072	Luxembourgish;	7666	Tahitian	8489
Chuang; Zhuang	9065	Macedonian	7775	Tajik 	8471
Church Slavic; Slavonic	6785	Malagasy	7771	Tamil _	8465
Chuvash	6786	Magyar	7285	Tatar	8484
Corsican	6779	Malayalam	7776	Telugu	8469
Česky	6783	Maltese	7784	Thai	8472
Dansk	6865	Manx	7186	Tibetan	6679
Deutsch	6869	Maori	7773	Tigrinya	8473
Dzongkha	6890	Marathi	7782	Tonga (Tonga Islands)	8479
English	6978	Marshallese	7772	Tsonga	8483
Esperanto	6979	Moldavian	7779	Tswana	8478
Estonian	6984	Mongolian	7778	Türkçe	8482
Euskara	6985	Nauru	7865	Turkmen	8475
Ελληνικά	6976	Navaho; Navajo	7886	Twi	8487
Faroese	7079	Ndebele, North	7868	Uighur	8571
Français	7082	Ndebele, South	7882	Ukrainian	8575
Frysk	7089	Ndonga	7871	Urdu	8582
Fijian	7074	Nederlands	7876	Uzbek	8590
Gaelic; Scottish Gaelic	7168	Nepali	7869	Vietnamese	8673
Gallegan	7176	Norsk	7879	Volapuk	8679
Georgian	7565	Northern Sami	8369	Walloon	8765
Gikuyu; Kikuyu	7573	North Ndebele	7868	Welsh	6789
Guarani	7178	Norwegian Nynorsk;	7878	Wolof	8779
Gujarati	7185	Occitan; Provencal	7967	Xhosa	8872
Hausa	7265	Old Bulgarian; Old Slavonic	6785	Yiddish	8973
Herero	7290	Oriya	7982	Yoruba	8979
Hindi	7273	Oromo	7977	Zulu	9085
Hiri Motu	7279	Ossetian; Ossetic	7983		
Hrwatski	6779	Pali	8073		
Ido	7379	Panjabi	8065		
Interlingua (International		Persian	7065		
Interlingue	7365	Polski	8076		
Inuktitut	7385	Português	8084		
		-			

Contents

Language5
Introduction
Supplied accessories8
Cleaning discs
Setup
•
Connections
Connecting TV 9-10
Using Composite Video jacks (CVBS) 9
Using Component Video jacks (Pr Pb Y) 9
Using an accessory RF modulator
Connecting the power cord10
Optional : Connecting to a Stereo System
11
Stereo system has Dolby Pro Logic or Right
/ Left Audio In jack11
Optional: Connecting Digital AV Receiver
11
Receiver has a PCM, Dolby Digital, or
MPEG2 decoder 11
Functional Overview
Front and Rear Panels12
Remote Control13
Getting Started
Step 1: Inserting batteries into the
Remote Control14
Using the Remote Control to operate the
Player 14
Step 2: Setting up the TV15-16
Setting up Progressive Scan feature (for
Progressive Scan TV only) 15
Selecting the color system that corresponds
to your TV
Step 3: Setting language preference 17
Setting the OSD Language17
Setting the Audio, Subtitle and Disc menu
language17

Disc Operations	
Playable Discs	18
Region Codes	18
Playing discs	19
Basic playback controls	19
Operations for video playback	20
Using the Disc Menu	
Zooming in	20
Resuming playback from the last stopped	
point	
Slow motion	20
Forward / Reverse Searching	20
OSD (On-Screen Display) (DVD/VCD/	
SVCD)21-	22
Using the OSD menu	
Title/Chapter/Track selection	
Time Search	
Audio/Subtitle	21
Angle	
Repeat	
Repeat A-B	
Preview Function	
OSD (On-Screen Display) Audio CD . 22-	
Disc Go To/Track Go To/Track Selection .	23
Repeat	
Special DVD features	
Playing a Title	
Changing the Audio Language	23
Subtitles	
Special VCD & SVCD Features	
Playback Control (PBC)	
Playing MP3/WMA/JPEG/Kodak Picture C	D
General Operation	
Playback selection	
Zoom picture (JPEG)	24
Playback with multi-angles (JPEG)	24
Preview Function (JPEG)	24
1 . ev.ev. : aea.e (j. 2 e)	
Karaoke Operations	
Playing Karaoke discs	25
General Operation	
Vocal	

Contents

Į
S
Į
ō
U
ш

DVD Setup Menu Options
General Setup menu26-27
Locking/Unlocking the disc for viewing 26
Dimming player's display panel 26
Programming disc tracks26-27
OSD Language27
Sleep27
Audio Setup Menu28-30
Analog output28
Digital Audio Setup
Sound Mode29
Night Mode - turning on/off30
Video Setup Menu30-32
TV Type30
Setting the TV Display31
Progressive - turning on/off31
Picture Setting32
Preference Page 33-35
Audio, Subtitle, Disc Menu33
Restricting playback by Parental Control
PBC34
MP3/JPEG Menu - turning on/off34
Changing the Password35
Restoring to original settings35
Troubleshooting 36-37
Specifications
Glossary 39

Introduction

Supplied accessories

Composite video cable (yellow)

Audio cable (white, red)





Cleaning discs

To clean a disc, use a micro fibre cleaning cloth and wipe the disc from the center to the edge in a straight line.

CAUTION!

Do not use solvents such as benzene, thinner, commercially available cleaners, or anti-static sprays intended for discs.

Since the optical unit (laser) of the DVD system operates at a higher power than regular DVD or CD players, cleaning CDs intended for DVD or CD players may damage the optical unit (laser). Therefore, refrain from using a cleaning CD.

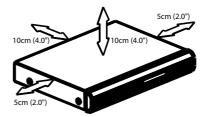
Setup

Finding a suitable location

- Place the set on a flat, hard and stable surface. Do not place the set on a carpet.
- Do not position the set on top of other equipment that might heat it up (e.g., receiver or amplifier).
- Do not put anything under the set (e.g., CDs, magazines).
- Install this system near the AC outlet and where the AC power plug can be reached easily.

Space for ventilation

 Place the apparatus in a location with adequate ventilation to prevent internal heat build up. Allow at least 10 cm (4.0") clearance from the rear and the top of the set and 5cm (2.0") from the left and right to prevent overheating.

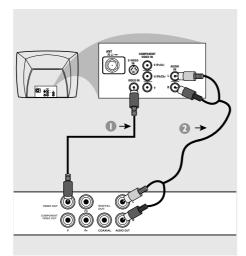


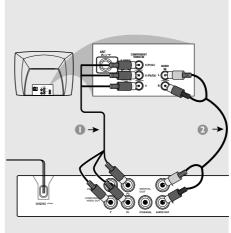
Avoid high temperatures, moisture, water and dust

- Apparatus shall not be exposed to dripping or splashing.
- Do not place any sources of danger on the apparatus (e.g., liquid filled objects, lighted candles).

Connections

Connecting TV





IMPORTANT!

- You only need to make <u>one</u> video connection from the following options, depending on the capabilities of your TV system.
- Connect the DVD system directly to the TV.

Using Composite Video jacks (CVBS)

- Use the composite video cable (yellow) to connect the DVD Player's CVBS (VIDEO) jack to the video input jack (or labeled as A/V In,Video In, Composite or Baseband) on the TV (cable supplied).
- To hear the sound of this DVD Player through your TV, use the audio cables (white/red) to connect [FRONT (L/R)] jacks of the DVD Player to the corresponding AUDIO IN jacks on the TV (cable supplied).

IMPORTANT!

 The progressive scan video quality is only possible when using Y Pb Pr and a progressive scan TV is required.

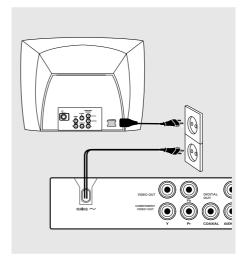
Using Component Video jacks (Y Pb Pr)

- Use the component video cables (red/blue/green) to connect the DVD system's Y Pb Pr jacks to the corresponding Component video input jacks (or labeled as Y Pb Pr) on the TV (cable not supplied).
- To hear the sound of this DVD Player through your TV, use the audio cables (white/red) to connect [FRONT (L/R)] jacks of the DVD Player to the corresponding AUDIO IN jacks on the TV (cable supplied).
- 3 Proceed to page 15 for detailed Progressive Scan set up.

Connections

RF coaxial cable to TV And the state of RF Modulator (example only) Antenna or Cable TV signal Antenna or Cable TV signal

Connecting the power cord



IMPORTANT!

- If your TV only has a single Antenna In jack (or labeled as 75 ohm or RF In,) you will need an RF modulator in order to view the DVD playback on the TV. See your electronics retailer or contact Philips for details on RF modulator availability and operations.

Using an accessory RF modulator

- Use the composite video cable (yellow) to connect the DVD player's CVBS (VIDEO OUT) jack to the video input jack on the RF modulator.
- Use the RF coaxial cable (not supplied) to connect the RF modulator to your TV's RF jack.

After everything is connected properly, plug in the AC power cord to the power outlet.

Never make or change any connections with the power switched on.

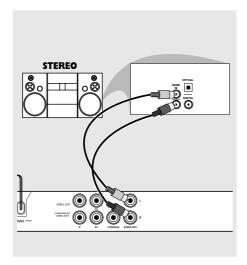
When no disc is loaded, press STANDBY ON on the DVD Player front panel,

"NO DISE" may appear on the display panel.

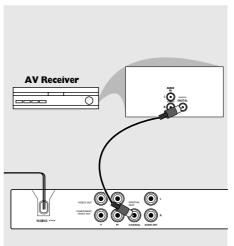


Connections

Optional: Connecting to a Stereo System



Optional: Connecting Digital AV Receiver



Stereo system has Dolby Pro Logic or Right / Left Audio In jack

- Select one of the video connections (CVBS VIDEO IN or COMPONENT VIDEO IN) depending on the options available on your TV.
- Use the audio cables (white/red) to connect [FRONT (L/R)] jacks of the DVD Player to the corresponding AUDIO IN jacks on the stereo system (cable supplied).

Receiver has a PCM, Dolby Digital, or MPEG2 decoder

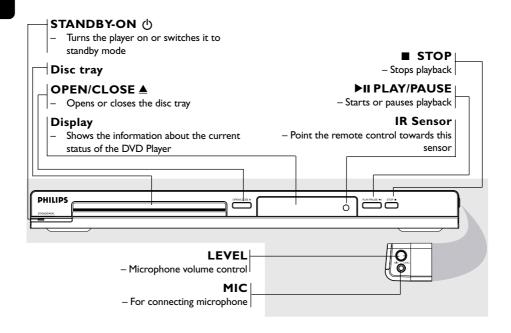
- Select one of the video connections (CVBS VIDEO IN or COMPONENT VIDEO IN) depending on the options available on your TV.
- Connect the COAXIAL jack of the DVD player to the corresponding Digital Audio In jack on your Receiver (cable not supplied).
- 3 Set the DVD player's Digital Output to PCM-ONLY or ALL depending on the capabilities of your Receiver (see page 28 "Digital Output").

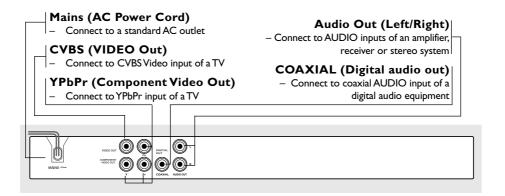
Helpful Hint:

 If the audio format of the Digital Output does not match the capabilities of your receiver, the receiver will produce a strong, distorted sound or no sound at all.

Functional Overview

Front and Rear Panels

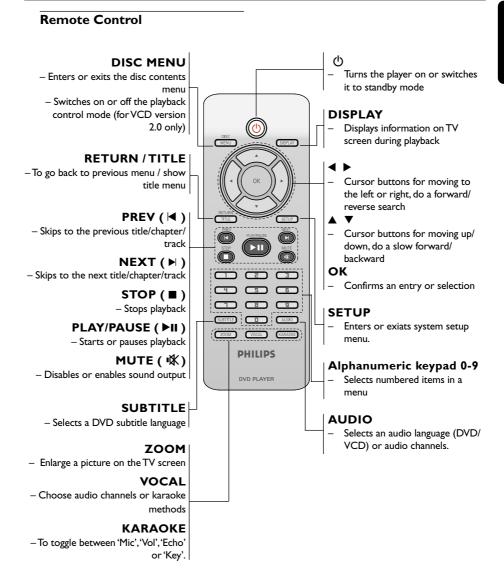




Caution: Do not touch the inner pins of the jacks on the rear panel. Electrostatic discharge may cause permanent damage to the unit.

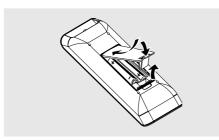
12

Functional Overview



Helpful Hint: Press "STOP" for about 2 seconds to OPEN or CLOSE disc tray.

Step 1: Inserting batteries into the Remote Control



- Open the battery compartment.
- Insert two batteries type R03 or AAA, following the indications (+ -) inside the compartment.
- Close the cover.

Using the Remote Control to operate the Player

- Aim the Remote Control directly at the remote sensor (IR) on the front panel.
- 2 Do not put any objects between the Remote Control and the DVD player while operating the DVD player.



CAUTION!

- Remove batteries if they are exhausted or if the Remote Control is not being used for a long time.
- Do not use old and new or different types of batteries in combination.
- Batteries contain chemical substances, so they should be disposed properly.

Step 2: Setting up the TV

IMPORTANT!

Make sure you have completed all the necessary connections. (See pages 9-10 "Connecting TV").

- Turn on the TV and set to the correct video-in channel. You should see the DVD background screen on the TV.
- Usually these channels are between the lowest and highest channels and may be called FRONT, A/V IN, or VIDEO. See your TV manual for more details.
 - → Or, you may go to channel 1 on your TV, then press the Channel down button repeatedly until you see the Video In channel
 - → Or, the TV Remote Control may have a button or switch that chooses different video modes.
 - → Or, set the TV to channel 3 or 4 if you are using an RF modulator.
- If you are using external equipment, (e.g., audio system or receiver), turn it on and select the appropriate input source for the DVD player output. Refer to the equipment owner's manual for detail.

Setting up Progressive Scan feature (for Progressive Scan TV only)

The progressive scan display twice as many frames per second as interlaced scanning (ordinary normal TV system). With nearly double the number of lines, progressive scan offers higher picture resolution and quality.

IMPORTANT!

Before enabling the progressive scan feature, you must ensure:

- 1) Your TV can accept progressive signals, a progressive scan TV is required.
- 2) You have connected the DVD player to your TV using Y Pb Pr (see page 9.)
- Turn on your TV.
- Turn off your TV progressive scan mode or turn on interlaced mode (refer to your TV user manual.)
- ③ Press **POWER** (也) on the remote control to turn on the DVD player.
- Select the correct Video Input channel. (See page 14).
 - → The DVD background screen appears on the TV.
- Press SETUP.
- 6 Press ► to select {VIDEO SETUP PAGE}.



- Select {PROGRESSIVE} to {ON}, then OK to confirm.
 - → The instruction menu appears on the TV.



8 Press ◀ to highlight or in the menu and press **OK** to confirm.

There will be a distorted picture on your TV at this state until you turn on the progressive scan mode on your TV.

- Turn on your TV progressive scan mode (refer to your TV user manual.)
 - → The below menu appears on the TV.



- Press ◀ to highlight or in the menu and press OK to confirm.
 - → The set up is complete now and you can start enjoy the high quality picture.

To deactivate Progressive manually:

- Wait for 15 seconds for auto recovery.
- Press OPEN CLOSE on the DVD player to open the disc tray.
- Press numeric keypad '1' on the remote control for few seconds.
 - ightarrow The DVD background screen appears on the TV.

Helpful Hint:

There are some progressive scan TV and High-Definition TV sets that are not fully compatible with this DVD system, resulting in the unnatural picture when playing back a DVD VIDEO disc in the progressive scan mode. In such a case, turn off the progressive scan feature on both the DVD player and your TV set.

Selecting the color system that corresponds to your TV

This DVD player is compatible with both NTSC and PAL. In order for a DVD disc to play on this player, the color system of the Disc, the TV and the DVD player should match.



- Press SETUP.
- ② Press ► to select {VIDEO SETUP PAGE}.
- Press ▲ ▼ to highlight {TV TYPE}, then press ▶.
- Press ▲ ▼ to highlight one of the options below:

PAL – Select this if the connected TV is PAL system. It will change the video signal of a NTSC disc and output in PAL format.

NTSC – Select this if the connected TV is NTSC system. It will change the video signal of a PAL disc and output in NTSC format.

Multi – Select this if the connected TV is compatible with both NTSC and PAL (multi-system). The output format will be in accordance with the video signal of the disc.

 Select an item and press OK.
 → Follow the instructions shown on the TV to confirm the selection (if any).

Helpful Hints:

- Before changing the current TV
 Standard setting, ensure that your TV
 supports the 'selected TV Type' system.
- If there is no proper picture on your TV, wait for 15 seconds for auto recovery.



To reset to default TV color system manually:

- Wait for 15 seconds for auto recovery.
 OR
- Press OPEN CLOSE on the DVD player to open the disc tray.
- Press numeric keypad '3' on the remote control for few seconds.
 - → The DVD background screen appears on the TV.

The <u>underlined option</u> is the factory default setting.

Press ◀ to go back to the previous menu item. Press **SETUP** to exit the menu item.

TIPS:

Step 3: Setting language preference

The language options are different depending on your country or region. It may not correspond to the illustrations shown on the user manual.

Setting the OSD Language

The On-screen language for the system menu will remain as you set it, regardless of various disc languages.



- Press SETUP.
- ② Press ► to select {GENERAL SETUP PAGE}.
- 3 Press ▲ ▼ to highlight {OSD LANGUAGE}, then press ►.
- Press ▲ ▼ to select a language and press OK.

Setting the Audio, Subtitle and Disc menu language

You can choose your own preferred language or soundtrack from audio, subtitles and disc menu languages. If the language selected is not available on the disc, the disc's default language will be used instead.



- Press STOP twice then, press SETUP.
- ② Press ► to select {PREFERENCE PAGE}.
- Press ▲ ▼ to highlight one of the options below at a time, then press ►.
 - 'Audio' (disc's soundtrack)
 - 'Subtitle' (disc's subtitles)
 - 'Disc Menu' (disc's menu)
- Press ▲ ▼ to select a language and press OK.

If the language you want is not in the list, then select {OTHERS}, then use the numeric keypad (0-9) on the remote to enter the 4-digit language code 'XXXX' (see page 5 "Language Code") and press **OK**.

Repeat steps 3~4 for other language settings.

IMPORTANT!

- If the inhibit icon (ø) appears on the TV screen when a button is pressed, it means the function is not available on the current disc or at the current time.
- Depending on the DVD or VIDEO
 CD, some operations may be different or restricted.
- Do not push on the disc tray or put any objects other than disc on the disc tray. Doing so may cause the disc player malfunction.

Playable Discs

Your DVD Player will play:

- Digital Video Discs (DVDs)
- Video CDs (VCDs)
- Super Video CDs (SVCDs)
- Digital Video Discs + Recordable[Rewritable] (DVD+R[W])
- Compact Discs (CDs)
- MP3 discs, picture (Kodak, JPEG) files on CD-R(W).
 - JPEG/ISO 9660 format
 - Maximum 30 characters display.
 - Supported sampling frequencies:32 kHz, 44.1 kHz, 48 kHz (MPEG-1)16 kHz, 22.05 kHz, 24 kHz (MPEG-2)
 - Supported Bit-rates: 32~256 kbps (MPEG-1), 8~160 kbps (MPEG-2) variable bitrates
- WMA files on CD-R(W).
 - -Supported Bit-rates: 32~192 kbps



Region Codes

This DVD player is designed to support the Region Management System. Check the regional code number on the disc package. If the number does not match the player's region number (see table below), the player may be unable to playback the disc.

Helpful Hints:

- It may not be possible to play CD-R/RW or DVD-R/RW in all cases due to the type of disc or condition of the recording.
- If you are having trouble playing a certain disc, remove the disc and try a different one. Improperly formatted disc will not play on this DVD Player.

Region	Discs that can be played (Example)
U.S.A. and Canada regions	
U.K and Europe regions	
Asia Pacific,Taiwan, Korea	
Australia, New Zealand, Latin America	
Russia and India regions	
China, Calcos Islands, Walls and Futuna Islands	

Playing discs

- Connect the power cords of the DVD player and TV (and any optional stereo or AV receiver) to a power outlet.
- Turn on the TV power and set to the correct Video In channel. (See page 14 "Setting up the TV").
- Press STANDBY-ON to turn on the DVD player.
 - → The DVD background screen appears on the TV.
- Press OPEN/CLOSE on the front of the DVD player.
- You can also hold down the STOP button on the remote control to open and close the disc tray.
- Place a disc into the disc tray with the lable facing up, then press OPEN/CLOSE
 - → For double-sided discs, load the side you want to play facing up.
- Playback may start automatically. If not press PLAY/PAUSE ►II.
 If a disc menu appears on the TV, see page 20 "Using the Disc Menu".
 If the disc is locked by parental control, you must enter your six-digit password. (See page 35).
- For more playback features, see pages 20– 24.

Basic playback controls

Unless otherwise stated, all operations described are based on Remote Control use.

Pausing playback

- During playback, press PLAY/PAUSE >II to pause playback and display a still picture.
 - → Sound will be muted.
- ② To resume normal playback, press PLAY/PAUSE ►II again.

Selecting track/chapter

- Press PREV | ✓ / NEXT ► to go to the previous or next track/chapter.
- In STOP mode, press DISPLAY to display the disc information text line for title/chapter/track (example - 00/08).
- Use alphanumeric keypad (0-9) to enter valid title/chapter/track number, then press OK.
 - → The playback skips to the selected title/chapter/track.

Stopping playback

Press STOP ■.

Helpful hints:

- Screen saver will start automatically if the disc playback is stopped/paused for 5 minutes.
- The player will automatically switch to Power Standby mode if you do not press any buttons for 15 minutes after the disc has stopped playing.

Operations for video playback (DVD/VCD/SVCD)

Using the Disc Menu

Depending on the disc, a menu may appear on the TV screen once you load in the disc.

To select a playback feature or item

 Use ◀► ▲ ▼ keys or numeric keypad (0-9) on the remote, then press OK to start playback.

To access or remove the menu

Press DISC MENU on the remote.

Zooming in

This function allows you to enlarge the picture on the TV screen and to pan through the enlarged picture.

- During playback, press ZOOM repeatedly to display the picture with different scales.
 - → Use ◀ ▶ ▲ ▼ keys to pan through the enlarged picture.
 - → Playback will continue.
- Press ZOOM repeatedly to return to the original size.

Resuming playback from the last stopped point

Resume playback of the last 5 discs is possible, even if the disc was ejected or the power switched off.

- Load one of the last 5 discs.→ "LORDING" appears.
- During loading mode, press PLAY/ PAUSE >II and the disc will be played back from the last point.

To cancel resume mode

■ In stop mode, press STOP ■ again.

Helpful Hint:

-This function is not possible on CD/MP3 disc.

Slow Motion

- Press ▲ ▼ during playback to select the required speed: 1/2, 1/4, 1/8 or 1/16 (forward {DVD/SVCD/VCD} or backward {DVD}).
 - → Sound will be muted.
- ② To return to normal speed, press PLAY/ PAUSE ►II.

Forward / Reverse Searching

- Press ◀► during playback to select the required speed: 2X, 4X, 8X, 16X or 32X (backward or forward).
 - → Sound will be muted (DVD/VCD) or intermittent (CD).
- ② To return to normal speed, press PLAY/ PAUSE ►II.

OSD (On-Screen Display) (DVD/ VCD/SVCD)

Using the OSD menu

OSD menu shows the disc playback information (for example, title or chapter number, elapsed playing time, audio/subtitle language), a number of operations can be done without interrupting disc playback.

During playback, press DISPLAY.
 A list of available disc information appears on the TV screen.





Title/Chapter/Track selection

- Press ▲ ▼ to highlight {Title} / {Chapter} or {Track}, then press ▶ to access.
- Use the numeric keypad (0-9) to enter a valid number (e.g. 04/05).
- ③ Press **OK** to confirm.
 → The playback skips to the selected title/chapter/track.

Time Search

Press ▲ ▼ to highlight {Time Disp.} (Time Display), then press ▶ to access.
 The following display types appears on the TV, depending on the Disc in the player.

For DVD discs:

TT Elapsed - elapsed playing time of current Title:

TT Remain - remaining playing time of current Title;

CH Elapsed - elapsed playing time of current Chapter;

CH Remain - remaining playing time of current Chapter;

For VCD/SVCD discs:

Total Elapsed - elapsed playing time of current Disc:

Total Remain - remaining playing time of current Disc;

Single Elapsed - elapsed playing time of current Track;

Single Remain - remaining playing time of current Track;

- ② Press ▲ ▼ to highlight {TT Time} / {CH Time} / {Disc Time} or {Track Time}, then press ► to access.
- 3 Use the **numeric keypad (0-9)** to input the valid time (e.g. 0:34:27).
- 4 Press **OK** to confirm.
 - → The playback skips to the chosen time.

Audio/Subtitle

- Press ▲ ▼ to highlight {Audio} or {Subtitle}, then press ► to access.
 Audio or Subtitle menu appears on the
- Press ▲ ▼ to select one language, then press OK to confirm.
 - → Current audio or subtitle language will be changed to the selected language.

Angle

- Press ▲ ▼ to highlight {Angle}, then pressto access.
- Use the numeric keypad (0-9) to key in a valid number.
- Press **OK** to confirm.
 - → Playback will go to the selected angle.

Repeat

- Press ▲ ▼ to highlight {Repeat}, then press ► to access.
 - Repeat menu appears on the TV.
- Press ▲ ▼ to highlight one of following mode.

For DVD

- Chapter (currently playing chapter)
- Title (currently playing title)
- All (entire disc)
- Off (cancel)

For Video CD

- Track (currently playing track)
- All (entire disc)
- Off (cancel)

For MP3

- Repeat One (currently playing file)
- Repeat Folder (all files in selected folder)
- Folder (playing all files in one folder once)
- Shuffle (all files in current folder at random playback)
- Single (currently playing file once)

For JPEG

In STOP mode,

- Repeat One (currently playing file)
- Repeat Folder (all files in selected folder)
- Folder (playing all files in one folder once)
- Shuffle (all files in current folder at random playback)
- Single (currently playing file once)

In PLAY mode,

Press **DISPLAY** during playback, 12 thumbnail pictures will appear on the TV screen. See "Preview Function (JPEG)".

Repeat A-B

- Press ▲ ▼ to highlight {Repeat A-B}.
- 2 Press **OK** to mark the starting point 'A'.
- Press OK again to mark the ending point 'B'
 - → The playback from point 'A' to 'B' is repeated.
- 4 Press **OK** third time to exit.

Preview Function

The preview function allows you to reduce the picture of 6 tracks enough to display in a full screen.

- Press ▲ ▼ to highlight {Preview} , then press ► to access.
 - → The preview menu appears on the TV screen.

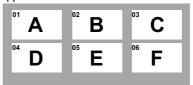




(DVD example)

(Video CD example)

- Press ▲ ▼ to select the PREVIEW type, then press OK.
 - → The picture of each segment will appear on the screen.



(example for 6 thumbnail pictures display)

- 3 Press ▲ ▼ ◀ ▶ to select a track or input your selected track number using the numeric keypad (0-9), then press OK.
 - → Playback will start automatically on the selected track.

OSD (On-Screen Display) (Audio CD)

This function displays disc information on the TV screen during playback.

- During playback, press DISPLAY.
 - → A list of available disc information appears on the TV screen.

Disc Go To/Track Go To/Track Selection

- Press DISPLAY repeatedly to select an option.
- Enter minutes and seconds from left to right in the time edit box using remote control alpha numerical keypad.
 - → Playback will change to the chosen time or to the selected track.

For Audio CD

- → {Disc Go To: XX:XX}: enable to select any part within the disc.
- → {Track Go To: XX:XX}: enable to select any part within the current track.
- → {Select Track: XX:TT}: enable to select any track.

Repeat

- Press DISPLAY repeatedly to select 'Repeat' information.
- 2 Press ◀► to switch between the following repeat mode.

For Audio CD

- Track (currently playing track)
- All (entire disc)
- Shuffle (random playback)
- Off (cancel)

Special DVD Features

Playing a Title

- Press DISC MENU.
 - → The disc menu appears on the TV screen.
- ② Use ▲ ▼ ◀ ► keys or alphanumeric keypad (0-9) to select a play option.
- Press OK key to confirm.

Changing the Audio Language

For DVD

 Press AUDIO repeatedly to select different audio languages.

Changing the Audio Channel For VCD

 Press AUDIO to select the available audio channels provided by the disc (MONO LEFT, MONO RIGHT, MIX-MONO, STEREO).

Subtitles

 Press SUBTITLE repeatedly to select different subtitle languages.

Special VCD & SVCD Features

Playback Control (PBC)

For VCD with Playback Control (PBC) feature (version 2.0 only)

- Press DISC MENU to toggle between 'PBC ON' and 'PBC OFF'.
 - → If you select 'PBC ON', the disc menu (if available) will appear on the TV.
 - → Use the PREV | ✓ / NEXT ► | or the numeric keypad (0-9) to select a play option.
- During playback, pressing RETURN/ TITLE will return to the menu screen (if PBC is on).

If you want to skip the index menu and playback directly from the beginning,

 Press DISC MENU key on the remote control to switch to PBC off.

Playing MP3/WMA/JPEG/Kodak Picture CD

IMPORTANT!

You have to turn on your TV and set to the correct Video In channel. (See page 14 "Setting up the TV").

General Operation

- Load a disc.
 - → The disc reading time may exceed 30 seconds due to the complexity of the directory/file configuration.
 - → The data disc menu appears on the TV screen.



- ② Press ▲ ▼ to select the folder and press OK to open the folder.
- 3 Press ▲ ▼ to select a track/file.
- Press PREV | ✓ / NEXT ► to go to previous/next page.
- Press OK to confirm.

Playback selection

During playback, you can;

- Press PREV | ✓ / NEXT ► to select the previous/next track/file in the current folder.
- Press ◀ ►▲ ▼ on the remote to rotate/ flip the picture files.
- Press PLAY/PAUSE > II repeatedly to pause/resume playback.

Zoom picture (JPEG)

- During playback, press ZOOM repeatedly to display the picture with different scales.
- Use ▲ ▼ ◀ ▶ to view the zoomed picture.

Playback with multi-angles (JPEG)

- During playback, press ▲ ▼ ◀ ▶ to rotate the picture on the TV screen.
 - ▲: flip the picture vertically by 180°
 - ▼: flip the picture horizontally by 180°
 - ◄: rotate the picture counter-clockwise by 90°
 - ▶: rotate the picture clockwise by 90°.

Helpful Hints:

- It may not be possible to play certain MP3/WMA/JPEG disc due to the configuration and characteristics of the disc or condition of the recording.
- It is normal to experience an occasional "skip" while listening to your MP3/WMA disc
- For multi-session discs with different formats, only the first session will be available.

Preview Function (JPEG)

This function shows the content of the current folder or the whole disc.

Press DISPLAY during playback.
 → 12 thumbnail pictures will appear on the TV screen.



- Press PREV | ✓ / NEXT ► | to display the other pictures on the previous/next page.
- Press ◀ ►▲ ▼ on highlight one of the picture and press OK to start playback.
- Press DISC MENU to return to Picture CD menu.

Karaoke Operations

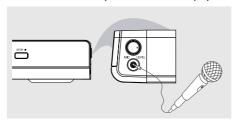
Playing Karaoke discs

IMPORTANT!

You have to turn on your TV and set to the correct Video In channel. (See page 14 "Setting up the TV").

General Operation

 Connect a microphone (not supplied) to MIC on the side panel of the DVD player.



- Press KARAOKE repeatedly to access karaoke menu MIC ON/OFF.
 'MIC ON/OFF' appears on the TV screen.
 - → Press ◀► key to turn On or Off the microphone.
- 3 Load a karaoke disc and press PLAY/ PAUSE ►II.
- Adjust the microphone volume using MIC LEVEL button on the side panel of the DVD player.

Helpful Hint:

 Before connecting the microphone, set the microphone volume to the minimum level to prevent howling.

Voca

- You can fade out the original vocal from a karaoke disc.
- Press VOCAL repeatedly to choose different audio modes.

Helpful Hint:

 This function and on screen display depends on the availability of the disc.

Karaoke

- Press KARAOKE repeatedly to toggle between 'Mic', 'Vol', 'Echo' or 'Key'.
- When 'Mic' is selected, press ◀► to set Mic On/Off.
- When 'Vol' is selected, press ◀ ► to adjust the vocal value between 0 and 20.
- 3 When 'Echo' is selected, press ◀ ▶ to adjust the echo value between 0 and 20.
- When 'Key' is selected, press ◀ ► to adjust the pitch value between -16 and 16. This function allows you to adjust the key tone level to match with your vocal.

This DVD player setup is carried out via the TV, enabling you to customise the DVD player to suit your particular requirements.

General Setup menu

- In disc mode, press **SETUP**.
- 2 Press ◀► to select 'General Setup' icon.
- Press OK to confirm.



Locking/Unlocking the disc for viewing

Not all discs are rated or coded by the disc maker. You can prevent a specific disc from playing by locking the disc. Up to 40 discs can be locked.

• In 'GENERAL SETUP PAGE', press ▲ ▼ to highlight {DISC LOCK}, then press ►.

LOCK

Select this to block the playback of the current disc. Subsequent access to a locked disc requires six-digit password. The default password is '136 900' (see page 36 "Changing the password").

UNLOCK

Select this to unlock the disc and allow future playback.

Press ▲ ▼ to select a setting, then press OK to confirm your selection.

Dimming player's display panel

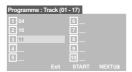
You can select different levels of brightness for the display screen.

- In 'GENERAL SETUP PAGE', press ▲ ▼ to highlight {DISPLAY DIM}, then press ►.
 - 100% Select this for full brightness.
 - 70% Select this for medium brightness.
 - 40% Select this for dimming the display.
- Press ▲ ▼ to select a setting, then press OK to confirm your selection.

Programming disc tracks (not for Picture CD/MP3/WMA)

You can play the contents of the disc in the order you want by programming the tracks to be played. Up to 20 tracks can be stored.

- In 'GENERAL SETUP PAGE', press ▲ ▼ to highlight {PROGRAM}, then press ► to select {INPUT MENU}.
- 2 Press **OK** to confirm.



To input your favorite tracks/chapter

- Use the **numeric keypad (0-9)** to enter a valid track/chapter number.
- Use ◀▶ ▲ ▼ keys to move the cursor to the next position.
 - → If there are more than ten track/ chapters, press **NEXT** → to open the next page and proceed with programming or.
 - → Use \blacktriangleleft \blacktriangleright \blacktriangle \blacktriangledown keys to highlight {NEXT} on the program menu, then press **OK**.
- S Repeat steps 3~4 to input another track/chapter number.

If you want to remove a track

- Use ◀► ▲ ▼ keys to move the cursor to the track you want to remove.
- Press **OK** to remove this track from the program menu.

To start program playback

Use ◀► ▲ ▼ keys to highlight {START} on the program menu, then press OK.
 → Playback will start with the selected tracks under the programmed sequence.

To exit program playback

Use ◀► ▲ ▼ keys to highlight {EXIT} on the program menu, then press OK.

OSD Language

This menu contains various language options for display language on the screen. For details, see page 17.

Sleei

Sleep function allows you to turn off the DVD Player automatically after a preset time.

• In 'GENERAL SETUP PAGE', press ▲ ▼ to highlight {SLEEP}, then press ▶.

15 Mins

Turn off the DVD Player after 15 minutes.

30 Mins

Turn off the DVD Player after 30 minutes.

45 Mins

Turn off the DVD Player after 45 minutes.

60 Mins

Turn off the DVD Player after 60 minutes.

OFF

Turn off the sleep function.

2 Press ▲ ▼ to select a setting, then press OK to confirm your selection.

Audio Setup Menu

- In disc mode, press SETUP.
- Press ◀► to select 'Audio Setup' icon.
- Press OK to confirm.



Analog Output

This options allows you to set the stereo analog output of your DVD player.

• In 'AUDIO SETUP PAGE', press ▲ ▼ to highlight {ANALOG OUTPUT}, then press ►.

Stereo

Select this option when output delivers sound from only the two front speakers.

LT/RT

Select this option if your DVD player is connected to a Dolby Pro Logic decoder.

V SURR

Allows the DVD player to use virtual surround sound effects.

Press ▲ ▼ to select a setting, then press OK to confirm your selection.

Digital Audio Setup

The options included in Digital Audio Setup are: 'Digital Output' and 'LPCM Output'.

- In 'AUDIO SETUP PAGE', press ▲ ▼ to highlight {DIGITAL AUDIO SETUP}, then press ►.
- Press the ▲ ▼ keys to highlight an option.
- 3 Enter its submenu by pressing ▶.
- Press ▲ ▼ to select a setting, then press OK to confirm your selection.

Digital Output

Set the Digital output according to your optional audio equipment connection.

- → Off:Turn off the digital output.
- → <u>All</u>: If you have connected your DIGITAL AUDIO OUT to a multi-channel decoder/receiver.
- → **PCM Only**: Only if your receiver is not capable of decoding multi-channel audio.

Helpful hint:

 If DIGITAL OUTPUT is set to 'All', all audio settings except MUTE are invalid.

LPCM Output

If you connect the DVD Player to a PCM compatible receiver via the digital terminals, such as coaxial or optical etc, you may need to adjust 'LPCM Output'. Discs are recorded at a certain sampling rate. The higher the sampling rate, the better the sound quality.

- ightharpoonup 48K: Playback a disc recorded at the sampling rate of 48kHz.
- → **96K**: Playback a disc recorded at the sampling rate of 96kHz. This rate can only be achieved in Stereo-Classic (Flat) mode.

Sound Mode

The options included in Sound Mode Setup are: '3D', 'Movie Mode' and 'Music Mode'.

- In 'AUDIO SETUP PAGE', press ▲ ▼ to highlight {SOUND MODE}, then press ▶.
- ② Press the ▲ ▼ keys to highlight an option.
- Enter its submenu by pressing ▶.
- Press ▲ ▼ to select a setting, then press OK to confirm your selection.

3 E

This function provides a virtual surround sound experience using just two speakers. → Off, Living Room, Hall, Arena and Church

Movie Mode

Select a Sound Mode that matches the type of music you are playing. These preset Sound Modes adjust the frequency bands of the video to enhance your favorite movie sound track.

→ <u>Off</u>, Sci-Fic, Action, Drama and Concert

Music Mode

Select a Sound Mode that matches the type of music you are playing. These preset Sound Modes adjust the frequency bands of the audio to enhance your favorite music.

→ Off, Digital, Rock, Classic and Jazz

Night Mode - turning on/off

In this mode, the high volume outputs are softened. It is useful for watching your favorite action movie without disturbing others at night.

In 'AUDIO SETUP PAGE', press ▲ ▼ to highlight {NIGHT MODE}, then press ▶.

ON

Select this to level out the volume. This feature is only available for movies with Dolby Digital mode.

OFF

Select this when you want to enjoy the surround sound with its full dynamic range.

② Press ▲ ▼ to select a setting, then press OK to confirm your selection.

Video Setup Menu

- In disc mode, press **SETUP**.
- 2 Press ◀► to select 'Video Setup' icon.
- Press OK to confirm.



TV Type

This menu contains the options for selecting the color system that matches the connected TV. For details, see page 16

Progressive - turning on/off

Setting the TV Display

Set the aspect ratio of the DVD Player according to the TV you have connected. The format you select must be available on the disc. If it is not, the setting for TV display will not affect the picture during playback.

- In 'VIDEO SETUP PAGE', press ▲ ▼ to highlight {TV DISPLAY}, then press ▶.
- Press ▲ ▼ to highlight one of the options below:

4:3 PAN SCAN -

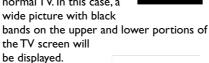
Select this if you have a normal TV and want both sides of the



picture to be trimmed or formatted to fit your TV screen.

4:3 LETTER BOX -

Select this if you have a normal TV. In this case, a wide picture with black



16:9 - Select this if you have a widescreen TV.

Select an item and press OK.



In the progressive scan mode, you can enjoy the high quality picture with less flickers. It only works when you have connected the DVD player's Y Pb Pr jacks to your TV that supports the progressive video input. Otherwise, a distorted picture will appear on the TV. For proper progressive scan set up, see page 15.

In 'VIDEO SETUP PAGE', press ▲ ▼ to highlight {PROGRESSIVE}, then press ▶.

To disable Progressive Scan function.

ON

To enable Progressive Scan function.

- Press ▲ ▼ to select a setting, then press **OK** to confirm your selection.
 - → Follow the instructions shown on the TV to confirm the selection (if any).
 - → If a distorted picture appears on the TV screen, wait for 15 seconds for auto recovery.

Picture Setting

This DVD Player provides three predefined sets of picture color settings and one personal setting which you can define yourself.

• In 'VIDEO SETUP PAGE', press ▲ ▼ to highlight {PICTURE SETTING}, then press ►

STANDARD

Select this for standard picture setting.

VIVID

Select this will make the TV picture brighter.

COOL

Select this will make the TV picture softer.

PERSONAL

Select this to personalise your picture color by adjusting the brightness, contrast, tint and color (saturation).

Press ▲ ▼ to select a setting, then press OK to confirm your selection.

- If you select {PERSONAL}, then proceed to steps 4~7.
 - → The 'personal picture setup' menu appears.



Press ▲ ▼ to highlight one of the following options.

BRIGHTNESS

Increase the value will brighten the picture or vice versa. Choose zero (0) for average setting.

CONTRAST

Increase the value will sharpen the picture or vice versa. Choose zero (0) to balance the contrast.

TINT

Increase the value will darken the picture or vice versa. Choose zero (0) for average setting.

COLOR

Increase the value will enhance the color in your picture or vice versa. Choose zero (0) to balance the color.

- ⑤ Press ◀► to adjust the setting that best suit your personal preference.
- 6 Repeat steps 4~5 for adjusting other color features.
- Press **OK** to confirm.

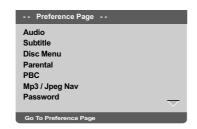
The <u>underlined option</u> is the factory default setting.

Press ◀ to go back to the previous menu item. Press **SETUP** to exit the menu item.

TIPS:

Preference Page

- Press twice to stop playback (if any), then press SETUP.
- 2 Press ◀► to select the 'Preference Page' icon.
- Press OK to confirm.



Audio, Subtitle, Disc Menu

These menus contain various language options for audio, subtitle and disc menu which may be recorded on the DVD. For details, see page 17.

Restricting playback by Parental Control

Some DVDs may have a parental level assigned to the complete disc or to certain scenes on the disc. This feature lets you set a playback limitation level. The rating levels are from 1 to 8 and are country dependent. You can prohibit the playing of certain discs that are not suitable for your children or have certain discs played with alternative scenes.

• In 'PREFERENCE PAGE', press ▲ ▼ to highlight {PARENTAL}, then press ▶.



Restricting playback by Parental Control

- Press ▲ ▼ to highlight a rating level for the disc inserted and press OK.
 → To disable Parental controls and have all Discs play, select {8 ADULT}.
- 3 Use the numeric keypad (0-9) to enter the six-digit password (see page 35 "Changing the password").
 - → DVDs that are rated above the level you selected will not play unless you enter your six-digit password.

Helpful Hints:

- VCD, SVCD, CD have no level indication, so parental control function has no effect on these types of disc. This applies to most illegal DVD discs.
- Some DVDs are not encoded with a rating though the movie rating may be printed on the Disc cover. The rating level feature does not work for such Discs.

PBC

You can set the PBC to ON or OFF. This feature is available only on Video CD 2.0 with playback control (PBC) feature. For details, see page 23.

MP3/JPEG Menu - turning on/off

MP3/JPEG Navigator can be set only if the disc is recorded with menu. It allows you to select different display menus for easy navigation.

In 'PREFERENCE PAGE', press ▲ ▼ to highlight {MP3/JPEG NAV}, then press ▶.

WITHOUT MENU

Select this to display all the files contained in the MP3/Picture CD.

WITH MENU

Select this to display only the folder menu of the MP3/Picture CD.

② Press ▲ ▼ to select a setting, then press OK to confirm your selection.

Changing the Password

The same password is used for both Parental Control and Disc Lock. Enter your six-digit password when prompted on the screen. The default password is 136900.

- In 'PREFERENCE PAGE', press ▲ ▼ to highlight {PASSWORD}, then press ► to select {CHANGE}.
- 2 Press **OK** and the menu appears.



- 3 Use the **numeric keypad (0-9)** to enter your old six-digit password.
 - → When doing this for the first time, key in '136900'.
 - → If you forget your old six-digit password, key in '136900'.
- 4 Enter the new six-digit password.
- Enter the new six-digit password a second time to confirm.
 - → The new six-digit password will now take effect.
- 6 Press **OK** to confirm.

Restoring to original settings

Setting the DEFAULT function will reset all options and your personal settings to the factory defaults, except your password for Parental Control and Disc Lock.

- In 'PREFERENCE PAGE', press ▲ ▼ to highlight {DEFAULT}, then press ► to select {RESET}.
- Press OK to confirm.
 All settings will now reset to factory defaults.

Troubleshooting

WARNING

Under no circumstances should you try to repair the system yourself, as this will invalidate the warranty. Do not open the system as there is a risk of electric shock.

If a fault occurs, first check the points listed below before taking the system for repair. If you are unable to remedy a problem by following these hints, consult your dealer or Philips for help.

Problem	Solution
No power	 Check if the AC power cord is properly connected. Press the STANDBY ON on the front of the DVD system to turn on the power.
No picture	 Refer to your TV's manual for correct Video In channel selection. Change the TV channel until you see the DVD screen. Check if the TV is switched on. If the progressive scan feature is activated but the connected TV does not support progressive signals or the cables are not connected accordingly, see page 15 for proper progressive scan set up or deactivate the progressive scan feature as below: 1) Turn off your TV progressive scan mode or turn on to interlaced mode. 2) Press OPEN/CLOSE to open the disc tray. 3) Press numeric keypad '1' on the remote control for few seconds.
Distorted picture	 Sometimes a small amount of picture distortion may appear depending on the disc being played back. This is not a malfunction.
Completely distorted picture or black/white picture with DVD	 Connect DVD Player directly to the TV. Make sure the disc is compatible with the DVD/ Player. Ensure that the DVD Player's TV Type is set to match that of the Disc and your TV.
No sound or distorted sound	Adjust the volume.Check that the speakers are connected correctly.
No audio at digital output	 Check the digital connections. Check if your receiver can decode MPEG-2 or DTS and if not, please make sure the digital output is set to PCM. Check if the audio format of the selected audio language matches your receiver capabilities.
Visit us at www.philip	s.com/support for service support

Troubleshooting

Problem	Solution
Disc can't be played	 The DVD+R/CD-R must be finalized. Ensure the disc label is facing up. Check if the disc is defective by trying another disc. Region code incorrect.
Picture freezes momentarily during playback	Check the disc for fingerprints/scratches and clean with a soft cloth wiping from center to edge.
No return to start-up screen when disc is removed	 Reset the unit by switching the player off, then on again.
The player does not respond to the Remote Control	 Aim the Remote Control directly at the sensor on the front of the player. Reduce the distance to the player. Replace the batteries in the Remote Control. Re-insert the batteries with their polarities (+/- signs) as indicated.
Buttons do not work	 To completely reset the player, unplug the AC cord from the AC outlet for 5-10 seconds.
Player does not respond to some operating commands during playback.	 Operations may not be permitted by the disc. Refer to the instructions of the disc jacket.
DVD Player cannot read CDs/DVDs	 Use a commonly available cleaning CD/DVD to clean the lens before sending the DVD Player for repair.
Menu items cannot be selected	 Press STOP twice before selecting System Menu. Depending on the disc availability, some menu items cannot be selected.
Unable to select Progressive Scan on/off	 Check that the output of the video signal is switch to 'YUV'.

Visit us at www.philips.com/support for service support

Specifications

TV STANDARD (PAL/50Hz) (NTSC/60Hz) AUDIO PERFORMANCE

Number of lines	625	525
Playback	Multistandard	(PAL/NTSC)

VIDEO PERFORMANCE

Video DAC	12 bit, 108MHz
YPbPr	0.7 Vpp — 75 ohm
Video Output	1Vpp — 75 ohm

VIDEO FORMAT

	-			
Digital Compression	MPEG 2 for DVD,SVCD			
	MPEG 1 for V	1 for VCD		
DVD	50Hz	60Hz		
Horiz. resolution	720 pixels	720 pixels		
Vertical resolution	576 lines	480 lines		
VCD	50Hz	60Hz		
Horiz. resolution	352 pixels	352 pixels		
Vertical resolution	288 lines	240 lines		

AUDIO FORMAT

Digital	MPEG/ AC-3/	compressed Digital
	PCM	16, 20, 24 bits
		fs, 44.1, 48, 96 kHz
	MP3(ISO 9660)	96, 112, 128, 256
		kbps & variable
		bit rate fs, 32, 44.1,

Analog Sound Stereo

Dolby Surround compatible downmix from Dolby Digital multi-channel sound

DA Converter	24 bit, 192 kHz	
DVD	fs 96 kHz	4Hz- 44kHz
	fs 48 kHz	4Hz- 22kHz
SVCD	fs 48 kHz	4Hz- 22kHz
	fs 44.1kHz	4Hz- 20kHz
CD/VCD	fs 44.1kHz	4Hz- 20kHz
Signal-Noise (1kHz)		> 90 dB
Dynamic range(1kHz)		> 80 dB
Crosstalk (1kHz)		> 70 dB
Distortion/noise (1kH	z)	> 65 dB
MPEG MP3	MPEG Audio L3	

CONNECTIONS

YPbPr Output	Cinch 3x
Video Output	Cinch (yellow)
Audio Output(L+R)	Cinch (white/red)
Digital Output	1 coaxial
	IEC60958 for CDDA / LPCM
	IEC61937 for MPEG 1/2,
	Dolby Digital

CABINET

Dimensions (w x h x d)	360 x 37 x 235 mm
Weight	Approximately 2.0 kg

POWER CONSUMPTION

Power Supply Rating	110-240V;
	50/60Hz
Power consumption	< 10 W
Power consumption in Standby mode	< 0.8 W

Specifications subject to change without prior notice

Glossary

Analog: Sound that has not been turned into numbers. Analog sound varies, while digital sound has specific numerical values. These jacks send audio through two channels, the left and right.

Aspect ratio: The ratio of vertical and horizontal sizes of a displayed image. The horizontal vs. vertical ratio of conventional TVs. is 4:3, and that of widescreens is 16:9.

AUDIO OUT Jacks: Jacks on the back of the DVD System that send audio to another system (TV, Stereo, etc.)

Bit Rate: The amount of data used to hold a given length of music; measured in kilobits per seconds, or kbps. Or, the speed at which you record. Generally, the higher the bit rate, or the higher the recording speed, the better the sound quality. However, higher bit rates use more space on a Disc.

<u>Chapter:</u> Sections of a picture or a music piece on a DVD that are smaller than titles. A title is composed of several chapters. Each chapter is assigned a chapter number enabling you to locate the chapter you want. <u>Component Video Out Jacks:</u> Jacks on the back of the DVD System that send high-quality video to a TV that has Component Video In jacks (R/G/B, Y/Pb/Pr, etc.).

<u>Disc menu</u>: A screen display prepared for allowing selection of images, sounds, subtitles, multi-angles, etc recorded on a DVD.

<u>Digital</u>: Sound that has been converted into numerical values. Digital sound is available when you use the DIGITAL AUDIO OUT COAXIAL or OPTICAL jacks. These jacks send audio through multiple channels, instead of just two channels as analog does.

Dolby Digital: A surround sound system developed by Dolby Laboratories containing up to six channels of digital audio (front left and right, surround left and right, center and subwoofer).

DTS: Digital Theatre Systems. This is a surround sound system, but it is different from Dolby Digital. The formats were developed by different companies. **JPEG:** A very common digital still picture format. A still-picture data compression system proposed by the Joint Photographic Expert Group, which features small decrease in image quality in spite of its high compression ratio.

MP3: A file format with a sound data compression system. "MP3" is the abbreviation of Motion Picture Experts Group 1 (or MPEG-1) Audio Layer 3. By using MP3 format. one CD-R or CD-RW can contain about 10 times as much data volume as a regular CD can.

<u>Multichannel</u>: DVD is specified to have each sound track constitute one sound field. Multichannel refers to a structure of sound tracks having three or more channels.

Parental Control: A function of the DVD to limit playback of the disc by the age of the users according to the limitation level in each country. The limitation varies from disc to disc; when it is activated, playback will be prohibited if the software's level is higher than the user-set level.

PCM (Pulse Code Modulation): A system for converting analog sound signal to digital signal for later processing, with no data compression used in conversion.

Playback control (PBC): Refers to the signal recorded on video CDs or SVCDs for controlling reproduction. By using menu screens recorded on a Video CD or SVCD that supports PBC, you can enjoy interactive-type software as well as software having a search function.

<u>Progressive Scan</u>: It displays all the horizontal lines of a picture at one time, as a signal frame. This system can convert the interlaced video from DVD into progressive format for connection to a progressive display. It dramatically increases the vertical resolution.

Region code: A system for allowing discs to be played back only in the region designated beforehand. This unit will only play discs that have compatible region codes. You can find the region code of your unit by looking on the product label. Some discs are compatible with more than one region (or ALL regions).

<u>Surround</u>: A system for creating realistic threedimensional sound fields full of realism by arranging multiple speakers around the listener.

<u>Title:</u> The longest section of a picture or music feature on DVD, music, etc., in video software, or the entire album in audio software. Each title is assigned a title number enabling you to locate the title you want. <u>VIDEO OUT jack:</u> Jack on the back of the DVD System that sends video to a TV.

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CLASS 1 LASER PRODUCT



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